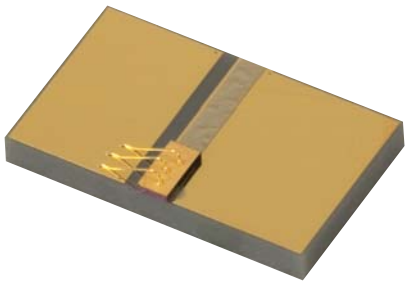
1310 nm Fabry-Perot Laser Diode



FPL1053C

Description

The FPL1053C 1310 nm Fabry-Perot Laser Diode is based on quantum well epitaxial layer growth and a highly reliable ridge waveguide structure. This diode features high optical output power and slope efficiency. The FPL1053C is a chip on submount measuring 3 mm x 5 mm and is ideal for incorporation into OEM solutions.

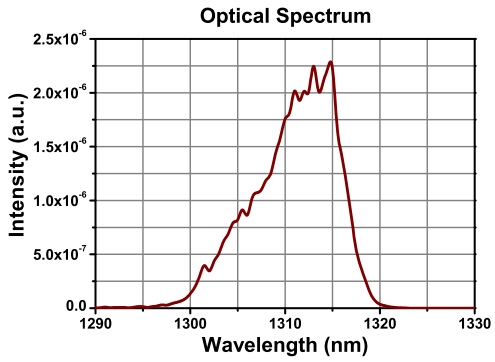
Specifications

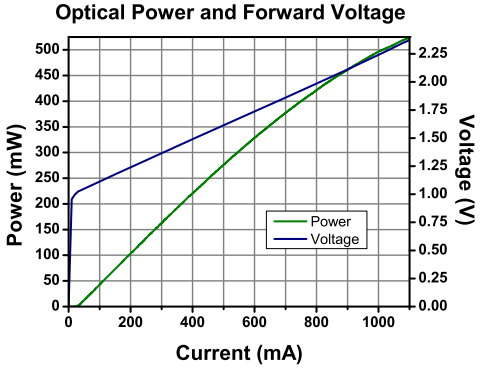
T_{CHIP} = 25 °C

FPL1053C				
	Symbol	**Min**	**Typical**	**Max**
Center Wavelength	λ_C	1290 nm	1310 nm	1330 nm
Spectral Bandwidth (RMS)	$\Delta\lambda$	-	5 nm	8 nm
Output Power Pulsed @ I_{PULSE}	P_{PULSED}	300 mW	-	-
Output Power CW @ I_{CW}	P_{CW}	160 mW	-	-
Operating Current Pulsed*	I_{PULSE}	-	750 mA	1000 mA
Operating Current CW	I_{CW}	-	400 mA	500 mA
Threshold Current	I_{TH}	-	30 mA	50 mA
Forward Voltage	V_F	-	2.0 V	3.0 V
Transverse Beam Divergence Angle (FWHM) [CW @ 400 mA]	θ_T	-	27°	36°
Lateral Beam Divergence Angle (FWHM) [CW @ 400 mA]	θ_L	-	15°	23°

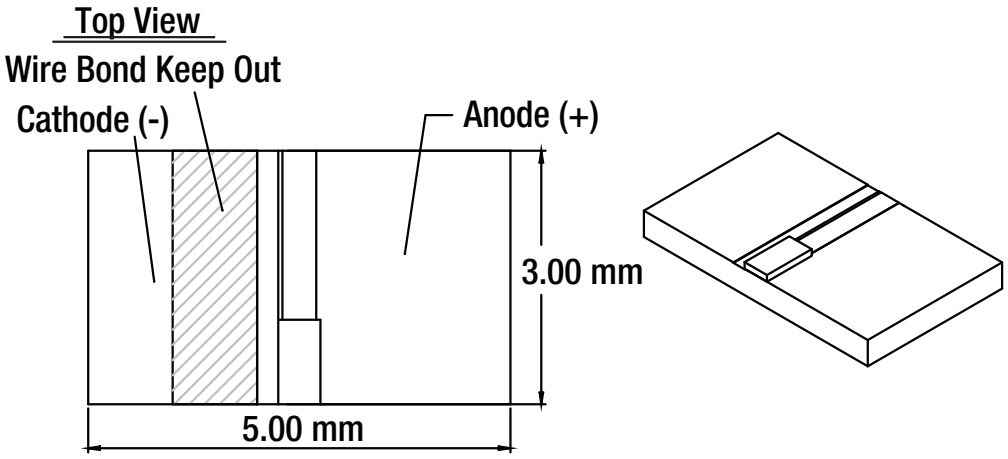
*QCW; (Current Pulse Width = 10 µs; Duty Cycle = 1%)

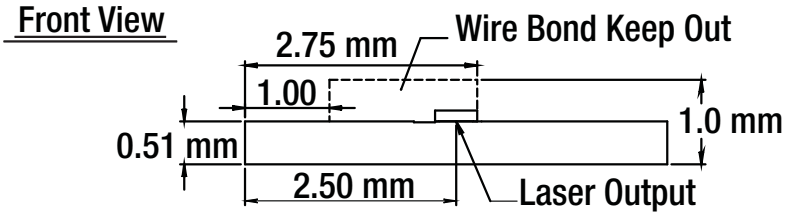
Performance Plots





Drawings


Top View
Wire Bond Keep Out
Cathode (-)
Anode (+)
3.00 mm
5.00 mm


Front View
2.75 mm
Wire Bond Keep Out
1.00
1.0 mm
0.51 mm
2.50 mm
Laser Output